CLAIMS

1. An ink-jet printer, comprising:

a carriage for receiving and supporting at least one ink-jet pen;

driver electronics for the ink-jet pen; and

means for providing electrical connection between the pen and the driver electronics once the pen has been fully inserted into the carriage including a flex cable in the carriage having at least one extended portion for contacting the pen during insertion and shunting electrostatic discharge (ESD) from the pen to ground before full insertion of the pen.

2. The printer of Claim 1 wherein the carriage is configured to support a pair of pens in side-by-side relation and the flex cable in the carriage has a pair of extended portions on opposite sides thereof for each contacting a corresponding one of the pens during insertion into the carriage and shunting ESD to ground.

3. The printer of Claim 1 wherein the extended portion is constructed and configured so that the extended portion initially remains in a predetermined free floating intercept orientation and will thereafter fold to a retracted orientation as the pen is progressively inserted into the carriage.

4. The printer of Claim 1 wherein the extended portion is constructed and configured so that upon removal of the pen from the carriage the extended portion will spring back to the predetermined intercept orientation.

5. The printer of Claim 1 wherein the extended portion has a conductive trace with a portion exposed and positioned for contacting the pen when the pen is inserted into the housing.

6. The printer of Claim 5 wherein the exposed portion of the trace is plated with a metal to ensure shunting of the ESD.

7. The printer of Claim 1 wherein the extended portion is configured as a generally C-shaped loop with an open region that surrounds a plurality of conductive dimples on the flex cable.

8. The printer of Claim 1 wherein the extended portion is secured to a sidewall of the carriage and has an exposed conductive pad that makes electrical contact with the pen upon insertion of the pen into the carriage.

9. The printer of Claim 1 wherein the driver electronics are provided by a printed circuit assembly (PCA) selected from the group consisting of a carriage PCA and a main PCA.

10. The printer of Claim 1 wherein the flex cable is made of a plastic film substrate with conductive traces formed thereon.

11. A printer, comprising:

a carriage for removably receiving and supporting at least one pen;

driver electronics for the pen; and

a flex cable that provides electrical connection between the pen and the driver electronics once the pen has been operatively mounted in the carriage, the flex cable having at least one extended portion for contacting the pen during insertion of the pen into the carriage and shunting electrostatic discharge (ESD) from the pen to ground before the pen is operatively mounted in the carriage.

12. The printer of Claim 11 wherein the carriage is configured to support a pair of pens in side-by-side relation and the flex cable in the carriage has a pair of extended portions on opposite sides thereof for each contacting a corresponding one of the pens during insertion into the carriage and shunting ESD to ground.

13. The printer of Claim 11 wherein the extended portion is constructed and configured so that the extended portion initially remains in a predetermined free floating intercept orientation and will thereafter fold to a retracted orientation as the pen is progressively inserted into the carriage.

14. The printer of Claim 11 wherein the extended portion is constructed and configured so that upon removal of the pen from the carriage the extended portion will spring back to the predetermined intercept orientation.

15. The printer of Claim 11 wherein the extended portion has a conductive trace with a portion exposed and positioned for contacting the pen when the pen is inserted into the housing.

16. The printer of Claim 15 wherein the exposed portion of the trace is plated with a metal to ensure shunting of the ESD.

17. The printer of Claim 11 wherein the extended portion is configured as a generally C-shaped loop with an open region that surrounds a plurality of conductive dimples on the flex cable.

18. The printer of Claim 11 wherein the extended portion is secured to a sidewall of the carriage and has an exposed conductive pad that makes electrical contact with the pen upon insertion of the pen into the carriage.

19. The printer of Claim 11 wherein the driver electronics are carried by the carriage.

20. An ink-jet printer, comprising:

a frame;

a carriage configured to removably receive and support at least one pen;

means for supporting and laterally reciprocating the carriage on the frame;

driver electronics for the pen;

means for propelling a sheet of media longitudinally past the pen; and

a flex cable mounted in the carriage for providing an electrical connection between the driver electronics and the pen when the pen is fully inserted into the carriage and including at least one extended portion that intercepts the pen during an initial phase of insertion into the carriage to shunt electrostatic discharge (ESD) from the pen to ground before the extended portion folds to allow the pen to be fully inserted into the carriage.